1. Magda

Program Name: Magda.java **Input File: magda.dat**

Magda knows how to convert between bases with integer values, but has wondered about converting floating point values in different bases. She found a tutorial that shows her how to convert from base ten floating point values to binary, and needs your help writing a program to do this process. The tutorial says to repeatedly multiply a base ten floating point value by 2, taking the whole number value each time, leaving behind the fractional value, until the final answer is 1.0.

For example, to convert .140625 to its floating point equivalent in base 2, which is .001001 base 2, you do this:

.140625 * 2 equals 0.28125, which yields 0
.28124 * 2 equals 0.5625, which yields 0
.5625 * 2 equals 1.125, which yields 1
.125 * 2 equals 0.25, which yields 0
.25 * 2 equals 0.5, which yields 0
.5 * 2 equals 1.0, which yields 1

resulting in .001001 as the base two floating point value.

Input – Several base ten floating point values, each on a separate line.

Output - The first ten digits (or less, if the process terminates before that) of the equivalent base two floating point value, each one a separate line. Do not print any digits to the left of the decimal point.

Sample data:
```
.140625
.111
```

Sample Output:
```
.001001
.0001110001
```